

Application No. 10/604,582
Filed: July 21, 2003
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Art Unit: 3729
Examiner: Thiem D. Phan

Amendments to the Drawings:

The attached sheets of drawings include new Figs. 35-37.

Attachment: New Sheets

Remarks

Claims 1-20 were in the application as filed, and claims 12-20 were examined after restriction. Claims 1-11 are canceled without prejudice. No other claim amendments are made. The specification is amended to change the title and, in paragraphs [0112] and [0113], to reflect numeral references for some elements. New Figs 35-37 are added to illustrate the elements described in paragraphs [0112] and [0113]. No new matter is added to the claims, drawings, or to the specification. Further consideration and examination is respectfully requested.

Informalities

The specification is objected to because the font size is beyond an adequate range. Applicant filed the application with a font size of 12, the same font size specified as preferable in 37 CFR §1.52 (b)(2)(ii). And the Office apparently has accepted the font size inasmuch as the application has been published. If further correction is needed, the Examiner is requested to call the undersigned to explain in greater detail the need for correction. The title has been amended as suggested by the Examiner.

The drawings are objected to as not showing every feature of the invention, e.g., “hollow cylindrical jig.” The drawings have been amended to add new Figs. 35-37 that illustrate the matter described in paragraphs [0112] and [0113] of the specification. Approval of the proposed changes is respectfully requested.

Rejections under 35 U.S.C. §103

Claims 12-20 stand rejected under 35 U.S.C. §103 as being unpatentable over Kanno (US 5,255,425) in view of Meacham et al. (US 6,122,817). The rejection is respectfully traversed.

The combination of the Kanno patent and the Meacham et al. patent is traversed. There is no teaching, suggestion or motivation to combine the two references. The Kanno patent discloses a method of making a laminated core for an electric motor. The method includes stamping a core sheet 42 in a progressive die 48. The stamping produces a core sheet 42 with a half cut die portion 54 where the through hole is to be. After each partially formed core sheet is

cut by the outer shape cutting punch 64, subsequently partially formed core sheets are nested on top to form a fitted-together stack (See Fig. 2B and Col. 5, ll. 15-24). Importantly, the Kanno patent teaches that further handling and automated conveyance are made possible by this stacking. (Col. 5, ll. 24-27). What the Examiner asserts to be a hollow cylindrical jig (2B, 74) is actually a die bushing (Col. 4, l. 61) for the outer shape cutting punch 66. It is believed that that the process of forcing the shaft 44 through the half cut die portions 54 to form the laminated core does not occur in the die as suggested by the Examiner. Indeed, it could not because the outer shape cutting punch 66 would interfere with the shaft 44. Rather, the process of forming the core is shown in Fig. 4 of the Kanno patent where a plurality of core sheets are disposed in a stacked state in the magazine, whereupon the shaft is forced into the through holes. (Col. 1, ll. 19-31). The Kanno patent shows no guides in the magazine. This must be the process for forming the lamination illustrated in Fig. 1C, which follows the die cutting process illustrated in Figs. 2A-2C.

The Meacham patent discloses the concept of pre-compressing a lamination stack in a fixture before inserting a shaft in the stack. Nothing in the Kanno patent would lead one ordinarily skilled in the art to pre-compress the stack in the magazine before inserting the shaft. Kanno is concerned only with a method of making the core sheets so that they nest with the half-cut die portions in order to avoid later rotating and skewing problems when forcing the shaft through the sheets (Col. 1, ll. 35-40), or to avoid other production problems (Col. 2, ll. 25-36) unrelated to the compression. Conversely, nothing in the Meacham patent would lead one ordinarily skilled in the art to utilize the die cutting process with half-cut die portions as taught by the Kanno patent. Without any teaching, suggestion or motivation to make the alleged combination, one cannot say that the combination would have been obvious.

Even if the combination were tenable, it would not reach the claimed invention. Neither the Kanno patent nor the Meacham patent teach at least one guide in the jig to align the sheets as they are stacked (claim 12), much less a guide that is an axial rib (claim 13), or one that is disposed at an angle to the longitudinal axis (claim 15). With respect to the Examiner's assertion that disposing the guide at an acute angle to the longitudinal axis is merely an obvious design choice, the reasons provided are inadequate. The stated reason is that Applicant has not

disclosed any advantage or purpose of solution to a problem. With respect, it takes more to show obviousness. The burden is on the Examiner to provide some suggestion of the desirability of doing what the inventor has done. "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the Examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985). That the Applicant did not state any advantage or purpose to his invention is not a convincing line of reasoning as to why artisan would have found the claimed invention to have been obvious in light of the teachings of the references. The Examiner is requested to show some prior art that renders this element unpatentable or to allow the claim.

Inasmuch as all claims are now believed allowable over the art of record, early notice of allowability is respectfully requested. Any questions about the foregoing can be directed to the undersigned and the Examiner is invited to resolve any remaining issues by telephone or by email.

Respectfully submitted,

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